

**Amendments to the Claims:**

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Currently amended) A process for the preparation of a hydrogenated polymer comprising the steps of: hydrogenation of at least one carbon-carbon double bond of an unsaturated polymer in latex in the presence of hydrazine, an oxidizing compound and a catalyst, followed by separation of the hydrogenated polymer from the latex ~~characterised in that~~ wherein after the separation of the hydrogenated polymer from the latex a mixing step is carried out in which the hydrogenated polymer is first mixed with an amine group containing compound and next the hydrogenated polymer is mixed with a compound that is capable of reacting with an amine.

2. (Currently amended) A process according to Claim 1 ~~characterised in that~~ wherein the compound that is capable of reacting with an amine group is a compound according to formula (I):



wherein

R is a unit derived from an (cyclo) aliphatic ( $\text{C}_1\text{-C}_{20}$ ) group or a ( $\text{C}_6\text{-C}_{20}$ ) aryl group,

X is a unit derived from an epoxide-, an anhydride-, an isocyanate-, an acid chloride- and/or a carboxylic acid and

$n=1\text{-}5$ .

3. (Currently amended) A process according to Claim 2 ~~characterised in that~~ wherein the compound according to formula (I) is phthalic acid anhydride, maleic anhydride, acetic anhydride, stearic anhydride, tetra hydro phthalic acid anhydride, cyclohexane dicarboxylic acid anhydride, nadic anhydride and/or succinic anhydride.

4. (Currently amended) A process according to ~~any one of the Claims 1-3 characterised in that claim 1, wherein~~ the unsaturated polymer is polybutadiene, polyisoprene, styrene-butadiene copolymer, acrylonitrile-butadiene copolymer, natural rubber, butadiene- isoprene rubber and/or a terpolymer of butadiene, acrylonitrile and (meth) acrylate ester or acid.

5. (Currently amended) A process according to Claim 4 ~~characterised in that~~ , wherein the polymer is acrylonitrile-butadiene copolymer.

6. (Currently amended) A process according to ~~any one of the Claims 1-5 characterised in that Claim 1, wherein~~ the amine group containing compound is an amine according to formula (II):



wherein

R is derived from an aliphatic group comprising at least one C atom or derived from an aromatic group comprising at least 6 C-atoms,

X is a hydrogen atom, NH<sub>2</sub>-, OH- or SH-group and

Y is a NH<sub>2</sub>-, OH- or SH-group.

7. (Currently amended) A process according to Claim 6 ~~characterised in that~~ wherein the amine is an amine according to formula (III)



8. (Currently amended) A process according to ~~any one of Claims 1-7 characterised in that Claim 1, wherein~~ the catalyst is a compound which contains boron.

9. (Currently amended) A hydrogenated polymer obtained by the process according to ~~any one of the Claims 1-8~~ Claim 1.

10. (Currently amended) Use of the a polymer obtained with the process according to ~~any one of Claims 1-8~~ Claim 1 ~~or use of the hydrogenated polymer according to Claim 9~~ in a thermoplastic composition or in a thermosetting composition.
11. (Currently amended) An article based on a polymer obtained with the process according to ~~any one of Claims 1-8~~ Claim 1 ~~or based on the polymer according to Claim 9~~.
12. (Currently amended) An article according to Claim 11 ~~characterised in that~~ wherein the article is applied in the automotive industry, in the oil industry, in the electrical industry, in the engineering industry, in the ship building industry, in household machines, in the paper manufacturing industry or in the cable industry.
13. (Currently amended) An article according to Claim 12 ~~characterised in that~~ wherein the article is a belt, a hose, a gasket, a boot, a bellow, a vibration damper or a seal.
14. (New) An article based on a polymer according to Claim 9.
15. (New) A thermoplastic composition comprising a thermoplastic material and a hydrogenated polymer according to Claim 9.
16. (New) A thermosetting composition comprising a thermosetting material and a hydrogenated polymer according to Claim 9.